

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Home Pride, Inc.
Bristol, Virginia/Washington County
No. SWRO11264

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Home Pride, Inc. received a Title V Operating Permit for its Bristol, Virginia facility on January 16, 2001. Home Pride, Inc. applied for a significant modification on October 7, 2002. The Department has reviewed the application, draft, and proposed permit. This significant modification is being issued.

(As modified May 6, 2003)

Engineer/Permit Contact: _____ Date: _____
Robert A. Lowe

Air Permit Manager: _____ Date: _____
Rob Feagins

Deputy Regional Director: _____ Date: _____
Dallas R. Sizemore

FACILITY INFORMATION

Permittee

Home Pride, Inc.
P.O. Box 160387
Nashville, TN 37216

Facility

Home Pride, Inc.
21528 Travelite Drive
Bristol, VA 24202

ID No. 51-191-0169

SOURCE DESCRIPTION

SIC Code: 2435 - Mobile home step manufacturing facility.

Home Pride, Inc. is located at 21528 Travelite Drive in Bristol, Virginia (Washington County). The facility operations consist of the fabrication of steps which involves plywood sawing, assembly and sanding. The fabricated wooden steps are then spray-coated with fiberglass, resin and a decorative finish. Also, wedge and cap block manufacturing for the manufacturing housing industry consists of cutting and banding wedges, and cutting and banding cap blocks (woodworking operations).

The facility is a Title V major source of styrene monomer emissions. This source is located in an attainment area for all pollutants. The facility was previously permitted under a minor NSR permit issued on July 9, 2001 (as amended November 4, 2002).

Home Pride applied for a significant modification to the Title V permit on October 7, 2002. Home Pride installed another dust collection system, router, and saws. Also, wedge and cap block manufacturing processes were installed since the last permit issuance, with a resulting increase in board-feet production. The Title V permit was reopened for a significant modification to incorporate these changes.

COMPLIANCE STATUS

The facility is inspected once a year. There are no outstanding compliance issues.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled/Emitted	Applicable Permit Date
Mobile Home Step Manufacturing							
01A	01A	Woodworking equipment/step manufacturing	8000 ft ² per day (150 steps per day)	Woodtek and Dust-Tech Dust Collectors (inside building)	01A**	Particulate	Permit dated 7/9/01 (as amended 11/04/02), Condition #3, 5, 6, 7
01	01	Spray Booth #1	2000 lbs per day	Purolater Fiberglass Filter #10011	01	Particulate, Styrene	Permit dated 7/9/01 (as amended 11/04/02), Conditions #4, 6, 7
02	02	Spray Booth #2	2000 lbs per day	Purolater Fiberglass Filter #10011	02	Particulate, Styrene	Permit dated 7/9/01 (as amended 11/04/02), Conditions #4, 6, 7

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

** The dust collector vents inside the building; building vent fans exhaust to the atmosphere.

EMISSIONS INVENTORY

The 1999 permit application emission inventory is shown below. Emissions are also summarized in the Title V permit application.

1999 Actual Emissions

Emission Unit	Criteria Pollutant Emission in Tons/Year	
	VOC	PM ₁₀
01A	-	1.4
01	9.52	0.39
02	9.52	0.39
Total	19.04	2.18

1999 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emission in Tons/Year
Styrene	18.74

EMISSION UNIT APPLICABLE REQUIREMENTS - Woodworking Equipment

Limitations

The following applicable PM₁₀ limitations are State BACT requirements from Conditions 3, 5, 6 and 7 of the minor NSR permit dated July 9, 2001 (as amended November 4, 2002):

Condition 3 requires that particulate emissions from the woodworking equipment shall be controlled by dust collection systems and the full enclosure provided by the building. The woodworking equipment and dust collection systems shall be provided with adequate access for inspection.

Condition 5 limits the output of the woodworking operations to 3,113,100 board-feet per year, calculated monthly as the sum of each consecutive 12 month period.

Condition 6 limits the controlled particulate emissions from the woodworking equipment (building ventilation system) to 2.4 lbs/hour and 2.2 tons per year.

Condition 7 requires that visible emissions from the facility's ventilation system shall not exceed 5 percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition is applicable at all times except during startup, shutdown and malfunction.

Monitoring

The monitoring requirements in Conditions 3 and 7 of the NSR permit have been modified to meet Part 70 requirements.

The permittee shall perform a weekly visible emission observation on the building vent fan exhausts (general exhausts for Unit 01A, four vent fan exhausts), during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission) that appear to be greater than 5% opacity, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes.

A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 5%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit.

Recordkeeping

- a. The permittee shall maintain records of all observations, VEE results, and corrective action taken.
- b. The permittee shall maintain monthly calculations of PM10 emission rates using pollutant-specific emission factors, to be performed as follows:

PM10 Emission Rate, lbs/hr = [(board-ft used/month)/(operating hours/month)] x PM10 emission factor, lbs/(10³ board-ft) x (1-0.90)

PM10 Emission Rate, tons/yr = (board-ft/yr) x (PM10 emission factor, lbs/(10³ board-ft) x 1 ton/2000 lbs x (1-0.90)

Note: The board-ft/yr is the sum of each consecutive 12-month period.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS - Wood-Coating Operations (Spray Booths)

Limitations

The following applicable VOC limitations are State BACT requirements from Conditions 4, 6, and 7 of the minor NSR permit dated April 25, 2000:

Condition 4 limits the throughput of Polylyte Resin, or equivalent, to 30,500 gallons per year, calculated monthly as the sum of each consecutive 12 month period.

Condition 4 also limits the styrene content of the Polylite Resin, or equivalent, to 4.48 pounds styrene per gallon of resin.

Condition 6 limits the total VOC emissions to 19.3 lbs per hour and 23.6 tons per year.

Condition 6 limits the total hazardous air pollutant (styrene emissions) emissions (as VOC) to 19.0 lbs per hour and 23.2 tons per year.

Condition 7 limits the visible emissions from each of the spray booth exhausts to 5% opacity as determined by EPA Method 9. This condition applies at all times except startup, shutdown and malfunction.

The following sections of the Virginia Administrative Code that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-180 - Standard for Toxic Pollutants

9 VAC 5-50-20E, Compliance - The facility, including any associated air pollution control equipment, shall be operated in a manner so as to minimize emissions.

Monitoring and Recordkeeping

The monitoring and recordkeeping requirements in Conditions 4, 6, and 7 of the NSR permit have been modified to meet Part 70 requirements.

The permittee shall maintain records showing the monthly total of Polylite Resin used, including the sum of the consecutive 12-month period.

The permittee shall maintain records showing the styrene content in pounds per gallon of the Polylite Resin, or equivalent, that is purchased. The styrene content is to be calculated as follows:

$$(\text{Density of Polylite Resin, lbs/gal}) \times (\text{weight \% of styrene in resin}) = \text{styrene content in pounds per gallon.}$$

The permittee shall provide calculations showing the styrene emissions in pounds per hour and tons per year based on the resin usage for the month and consecutive 12-month period, as shown below:

Volatile Organic Compounds (VOC)

Emission rate, lbs/hr = (resin usage, gallons/month) x (VOC content of resin, lbs/gallon)/(total spraying hours per month)

Emission rate, tons/yr = (resin usage, gallons/year -sum of consecutive 12-month period) x (VOC content of resin, lbs/gallon) x 1 Ton/2000 lbs.

Styrene (as VOC)

Emission rate, lbs/hour = {(resin usage, gallons/month x density of resin, lbs/gallon) x [(0.00714 x weight % styrene in resin) - 0.180]}/(total spraying hours per month).

Emission rate, tons per year = {(resin usage, gallons/year x density of resin, lbs/gallon) x [(0.00714 x weight % styrene in resin) - 0.180]} x 1 Ton/2000 lbs.

The above equation, resin usage x (0.00714 x weight % styrene in resin - 0.180), is for spray lay-up of styrene monomer and is recommended by the EPA. This equation was reported in the Composite Fabricators Association's Models for the Reinforced Plastics Industries (February 28, 1998).

The permittee shall perform a weekly visible emission observation on each spray booth exhaust (Units 01 and 02), during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission) that appear to be greater than 5% opacity, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes. A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 5%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit. A Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner such that no visible emissions are present; the spray booth is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

The general requirements which apply to the facility include the administrative requirements of Chapter 20 of State Regulations, which describe the authority of the DEQ and the responsibility of the company to provide accurate information pertaining to air emissions. This chapter also outlines the responsibility of the company to maintain the facility in proper operation.

FUTURE APPLICABLE REQUIREMENTS

National emission standards for hazardous air pollutants for new and existing reinforced plastic composite production facilities, 40 CFR Part 63, Subpart WWWW (MACT), was promulgated on April 21, 2003. This facility may be subject to these requirements.

INAPPLICABLE REQUIREMENTS

N/A

COMPLIANCE PLAN

N/A

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation ¹	Pollutant Emitted (5-80-720 B.)	Rated Capacity
03	Empire Natural Gas Heater; Model UH 1300 FSP	5-80-720 C	PM, VOC, NO _x , SO ₂ , CO	0.3 MMBTU/HR
04	Lennox Natural Gas Heater; Model LF 3-330	5-80-720 B	PM, VOC, NO _x , SO ₂ , CO	0.33 MMBTU/HR

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in the Bristol Herald-Courier/Virginia-Tennessean, Bristol, Virginia, on May 17, 2000. EPA was sent a copy of the draft permit and notified of the public notice on May 10, 2000. The affected states, including Kentucky, West Virginia, North Carolina and Tennessee, were sent a copy of the public notice by e-mail, fax or letter, dated May 16, 2000.

Public comments were accepted from May 17, 2000 through June 16, 2000. No comments were received from the public or the affected states regarding the draft permit. EPA sent comments in a letter dated June 7, 2000. Responses to EPA's comments can be found in the Response to Comments Document.

A public notice regarding this draft permit significant modification was placed in the Bristol Herald Courier, Bristol, Virginia, on February 5, 2003. EPA was sent a copy of the draft permit and notified of the public notice on January 28, 2003. The affected states, including North Carolina, West Virginia, and Tennessee, were sent a copy of the public notice by e-mail, fax or letter, dated January 28, 2003. The public comment period ended on March 7, 2003, with no comments being received by this office.